

WHAT IS CLAIMED IS

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1. An image forming apparatus comprising:  
a hardware resource used for image forming  
processing; and  
a program for performing processing concerning  
10 image formation,  
wherein said apparatus comprises:  
a reading type changing part changing a type  
of reading an original during a plurality of originals  
which include different types of originals in a mixed  
15 manner being read; and  
a grouping part grouping printing paper sheets  
on which images have been formed based on the plurality  
of originals.

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2. The image forming apparatus as claimed in  
claim 1, wherein:  
25 said reading type changing part changes a type

of reading an original in response to a reading type change instruction input by an operator.

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3. The image forming apparatus as claimed in claim 2, wherein:

10 said type comprises a type of an original as to whether the original has an image on a single side thereof or images on both sides thereof.

15

4. The image forming apparatus as claimed in claim 1, wherein:

said type comprises a size of the original.

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5. The image forming apparatus as claimed in claim 4, further comprising a size detecting part 25 detecting the size of the original.

6. The image forming apparatus as claimed in claim 5, wherein:

    said reading type changing part changes the type of reading an original when the size of an original  
5    detected by said size detecting part immediately before is different from the size of an original which is read subsequently.

10

7. The image forming apparatus as claimed in claim 5, wherein:

    said size detecting part stops a size  
15    detection operation in response to a reading size changing instruction input by an operator.

20

8. The image forming apparatus as claimed in claim 1, wherein:

    in case the reading type changing part changes the type of reading an original, an image of an original  
25    which is read subsequently is formed on a printing paper

sheet which is different from a printing paper sheet on which an image is formed immediately before the reading type is changed.

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9. An image forming apparatus comprising:  
a hardware resource used for image forming  
10 processing; and  
a program for performing processing concerning  
image formation,  
wherein said apparatus comprises:  
a printing type changing part changing a type  
15 in which a read image of an original is formed on a  
printing paper sheet, during a plurality of originals  
which include different types of originals in a mixed  
manner being read; and  
a grouping part grouping the printing paper  
20 sheets on which images have been formed based on the  
plurality of originals.

10. The image forming apparatus as claimed in  
claim 9, wherein:

5 said reading type changing part changes the  
type in which an image of original is formed on a  
printing paper sheet in response to a printing type  
change instruction input by an operator.

10

11. The image forming apparatus as claimed in  
claim 9, wherein:

15 said type comprises a type of an original as  
to whether an image of original is formed on a single  
side of a printing paper sheet or images of originals  
are formed on a both sides of a printing paper sheet

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12. The image forming apparatus as claimed in  
claim 9, wherein:

25 in case the printing type changing part  
changes the type in which an image of original is formed  
on a printing paper sheet, an image of original formed

subsequently on a printing paper sheet which is different from a printing paper sheet on which an image is formed immediately before the type of forming an image is changed.

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13. The image forming apparatus as claimed in  
10 claim 9, wherein:  
said type comprises a size of the original.

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14. The image forming apparatus as claimed in  
claim 13, further comprising a size detecting part  
detecting the size of the original.

20

15. The image forming apparatus as claimed in  
claim 14, wherein:  
25 said printing type changing part changes the

size of a printing paper sheet on which an image of  
original is formed subsequently when the size of an  
original detected by said size detecting part  
immediately before is different from the size of an  
5 original which is read subsequently.

10 16. The image forming apparatus as claimed in  
claim 14, wherein:

    said size detecting part stops an original  
size detecting operation in response to a reading type  
change instruction input by an operator.

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17. An image forming apparatus comprising:  
20 a hardware resource used for image forming  
processing; and

    a program for performing processing concerning  
image formation,

    wherein said apparatus comprises:

25 a paper inserting part inserting a

predetermined paper sheet into a plurality of printing paper sheets on which images are formed based on a plurality of originals having different types of originals in a mixed manner; and

5           a grouping part grouping the printing paper sheets.

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18. The image forming apparatus as claimed in claim 17, wherein:

      said paper inserting part inserts a predetermined paper sheet subsequent to a printing paper sheet on which an image of original read immediately before is formed in response to a paper inserting instruction input by an operator, during the plurality of originals being read.

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19. An image forming apparatus comprising:  
      a hardware resource used for image forming  
25 processing; and

a program for performing processing concerning image formation,

wherein said apparatus comprises:

an original separating part which, in response

5 to an original separating instruction input by an operator during a plurality of originals having different types of originals in a mixed manner being read, forms an image of original immediately subsequent to reception of said instruction onto a printing paper sheet which is different from a printing paper sheet on which an image of original read immediately before the reception of said instruction is formed; and

10 a grouping part grouping the printing paper sheets on which images have been formed based on the 15 plurality of originals.

20 20. The image forming apparatus as claimed in claim 1, further comprising an automatic original feeding part which automatically reads the plurality of originals set therein.

21. The image forming apparatus as claimed in  
claim 9, further comprising an automatic original  
feeding part which automatically reads the plurality of  
originals set therein.

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22. The image forming apparatus as claimed in  
10 claim 17, further comprising an automatic original  
feeding part which automatically reads the plurality of  
originals set therein.

15

23. The image forming apparatus as claimed in  
claim 19, further comprising an automatic original  
feeding part which automatically reads the plurality of  
20 originals set therein.

25

24. The image forming apparatus as claimed in

claim 1, wherein:

in addition to the image of original, a page number is printed on the printing paper sheet.

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25. The image forming apparatus as claimed in claim 9, wherein:

10 in addition to the image of original, a page number is printed on the printing paper sheet.

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26. The image forming apparatus as claimed in claim 17, wherein:

in addition to the image of original, a page number is printed on the printing paper sheet.

20

27. The image forming apparatus as claimed in 25 claim 19, wherein:

in addition to the image of original, a page number is printed on the printing paper sheet.

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28. The image forming apparatus as claimed in claim 24, wherein:

the page number is not printed on a side of  
10 the printing paper sheet on which the image of original  
is not formed.

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29. The image forming apparatus as claimed in claim 25, wherein:

the page number is not printed on a side of  
the printing paper sheet on which the image of original  
20 is not formed.

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30. The image forming apparatus as claimed in

claim 26, wherein:

the page number is not printed on a side of  
the printing paper sheet on which the image of original  
is not formed.

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31. The image forming apparatus as claimed in  
10 claim 27, wherein:

the page number is not printed on a side of  
the printing paper sheet on which the image of original  
is not formed.

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32. The image forming apparatus as claimed in  
claim 1, further comprising a recording part which  
20 stores data of each image which is formed on the  
printing paper sheet.

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33. The image forming apparatus as claimed in  
claim 9, further comprising a recording part which  
stores data of each image which is formed on the  
printing paper sheet.

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34. The image forming apparatus as claimed in  
10 claim 17, further comprising a recording part which  
stores data of each image which is formed on the  
printing paper sheet.

15

35. The image forming apparatus as claimed in  
claim 19, further comprising a recording part which  
stores data of each image which is formed on the  
20 printing paper sheet.

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36. The image forming apparatus as claimed in

claim 32, wherein:

the data stored by said recording part are  
integrated.

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37. The image forming apparatus as claimed in  
claim 33, wherein:

10 the data stored by said recording part are  
integrated.

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38. The image forming apparatus as claimed in  
claim 34, wherein:

the data stored by said recording part are  
integrated.

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39. The image forming apparatus as claimed in  
25 claim 35, wherein:

the data stored by said recording part are integrated.

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40. The image forming apparatus as claimed in claim 1, wherein:

10 said grouping part groups the plurality of printing paper sheets by attaching a front cover or a back cover to said plurality of printing paper sheets.

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41. The image forming apparatus as claimed in claim 9, wherein:

15 said grouping part groups the plurality of printing paper sheets by attaching a front cover or a 20 back cover to said plurality of printing paper sheets.

25

42. The image forming apparatus as claimed in

claim 17, wherein:

15                   said grouping part groups the plurality of printing paper sheets by attaching a front cover or a back cover to said plurality of printing paper sheets.

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10                   43. The image forming apparatus as claimed in claim 19, wherein:

15                   said grouping part groups the plurality of printing paper sheets by attaching a front cover or a back cover to said plurality of printing paper sheets.

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20                   44. The image forming apparatus as claimed in claim 1, wherein:

25                   said grouping part groups the plurality of printing paper sheets by binding them with a staple or punching them.

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45. The image forming apparatus as claimed in  
claim 9, wherein:

5        said grouping part groups the plurality of  
printing paper sheets by binding them with a staple or  
punching them.

10        46. The image forming apparatus as claimed in  
claim 17, wherein:

15        said grouping part groups the plurality of  
printing paper sheets by binding them with a staple or  
punching them.

20        47. The image forming apparatus as claimed in  
claim 19, wherein:

25        said grouping part groups the plurality of  
printing paper sheets by binding them with a staple or  
punching them.

48. The image forming apparatus as claimed in  
claim 1, wherein:

5       said grouping part groups the plurality of  
printing paper sheets in response to a finish  
instruction input by an operator.

10       49. The image forming apparatus as claimed in  
claim 9, wherein:

      said grouping part groups the plurality of  
printing paper sheets in response to a finish  
instruction input by an operator.

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20       50. The image forming apparatus as claimed in  
claim 17, wherein:

      said grouping part groups the plurality of  
printing paper sheets in response to a finish  
instruction input by an operator.

25

51. The image forming apparatus as claimed in  
claim 19, wherein:

5        said grouping part groups the plurality of  
printing paper sheets in response to a finish  
instruction input by an operator.

10        52. The image forming apparatus as claimed in  
claim 1, further comprising a sorting part which sorts  
and ejects the plurality of printing paper sheets on  
which images of the plurality of originals are formed.

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20        53. The image forming apparatus as claimed in  
claim 9, further comprising a sorting part which sorts  
and ejects the plurality of printing paper sheets on  
which images of the plurality of originals are formed.

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54. The image forming apparatus as claimed in  
claim 17, further comprising a sorting part which sorts  
and ejects the plurality of printing paper sheets on  
which images of the plurality of originals are formed.

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55. The image forming apparatus as claimed in  
10 claim 19, further comprising a sorting part which sorts  
and ejects the plurality of printing paper sheets on  
which images of the plurality of originals are formed.

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56. The image forming apparatus as claimed in  
claim 52, wherein:  
said sorting part sorts and ejects the  
20 plurality of printing paper sheets in use of the data of  
images of originals.

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57. The image forming apparatus as claimed in  
claim 53, wherein:

5 said sorting part sorts and ejects the  
plurality of printing paper sheets in use of the data of  
images of originals.

10 58. The image forming apparatus as claimed in  
claim 54, wherein:

15 said sorting part sorts and ejects the  
plurality of printing paper sheets in use of the data of  
images of originals.

59. The image forming apparatus as claimed in  
20 claim 55, wherein:

25 said sorting part sorts and ejects the  
plurality of printing paper sheets in use of the data of  
images of originals.

60. The image forming apparatus as claimed in  
claim 56, wherein:

5 said sorting part ejects the plurality of  
printing paper sheets with changing an orientation or  
shifting a position thereof.

10 61. The image forming apparatus as claimed in  
claim 57, wherein:

5 said sorting part ejects the plurality of  
printing paper sheets with changing an orientation or  
shifting a position thereof.

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62. The image forming apparatus as claimed in  
20 claim 58, wherein:

5 said sorting part ejects the plurality of  
printing paper sheets with changing an orientation or  
shifting a position thereof.

25

63. The image forming apparatus as claimed in  
claim 59, wherein:

5 said sorting part ejects the plurality of  
printing paper sheets with changing an orientation or  
shifting a position thereof.

10 64. The image forming apparatus as claimed in  
claim 52, wherein:

said sorting part sorts and ejects the  
plurality of printing paper sheets in response to a  
finish instruction input by an operator.

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65. The image forming apparatus as claimed in  
20 claim 53, wherein:

said sorting part sorts and ejects the  
plurality of printing paper sheets in response to a  
finish instruction input by an operator.

25

66. The image forming apparatus as claimed in  
claim 54, wherein:

5 said sorting part sorts and ejects the  
plurality of printing paper sheets in response to a  
finish instruction input by an operator.

10 67. The image forming apparatus as claimed in  
claim 55, wherein:

said sorting part sorts and ejects the  
plurality of printing paper sheets in response to a  
finish instruction input by an operator.

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68. A printing method for an image forming  
20 apparatus which comprises:

a hardware resource used for image forming  
processing; and

a program for performing processing concerning  
image formation,

25 wherein said method comprises:

a reading type changing step of changing a type of reading an original during a plurality of originals which include different types of originals in a mixed manner being read; and

5 a grouping step of grouping printing paper sheets on which images have been formed based on the plurality of originals.

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69.

A printing method for an image forming apparatus which comprises:

a hardware resource used for image forming  
15 processing; and

a program for performing processing concerning image formation,

wherein said method comprises:

a printing type changing step of changing a  
20 type in which a read image of an original is formed on a printing paper sheet, during a plurality of originals which include different types of originals in a mixed manner being read; and

a grouping step of grouping the printing paper  
25 sheets on which images have been formed based on the

plurality of originals.

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70. A printing method for an image forming apparatus which comprises:

a hardware resource used for image forming processing; and

10 a program for performing processing concerning image formation,

wherein said method comprises:

a paper inserting step of inserting a predetermined paper sheet into a plurality of printing 15 paper sheets on which images are formed based on a plurality of originals having different types of originals in a mixed manner; and

a grouping step of grouping the printing paper sheets.

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71. A printing method for an image forming 25 apparatus which comprises:

a hardware resource used for image forming processing; and

a program for performing processing concerning image formation,

5 wherein said method comprises:

an original separating step of, in response to an original separating instruction input by an operator during a plurality of originals having different types of originals in a mixed manner being read, forming an 10 image of original immediately subsequent to reception of said instruction onto a printing paper sheet which is different from a printing paper sheet on which an image of original read immediately before the reception of said instruction is formed; and

15 a grouping step of grouping printing paper sheets on which images have been formed based on the plurality of originals.

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72. The printing method as claimed in claim 68, further comprising a sorting step of sorting and ejecting the plurality of printing paper sheets in case 25 of ejecting a plurality of groups of printing paper

sheets, which groups are obtained in said grouping step.

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73. The printing method as claimed in claim  
69, further comprising a sorting step of sorting and  
ejecting the plurality of printing paper sheets in case  
of ejecting a plurality of groups of printing paper  
10 sheets, which groups are obtained in said grouping step.

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74. The printing method as claimed in claim  
70, further comprising a sorting step of sorting and  
ejecting the plurality of printing paper sheets in case  
of ejecting a plurality of groups of printing paper  
sheets, which groups are obtained in said grouping step.

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75. The printing method as claimed in claim  
25 71, further comprising a sorting step of sorting and

ejecting the plurality of printing paper sheets in case of ejecting a plurality of groups of printing paper sheets, which groups are obtained in said grouping step.